Electronic Version
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SYSTEM AND METHOD FOR REAL-TIME PROCESSING AND DISPLAY OF DIGITAL MEDICAL IMAGES

Abstract

A method of processing image data of a scanned object includes performing, in integer format, a pixel offset correction on the image data using unsigned saturation arithmetic to produce an image in integer format having negative value pixels clipped to a value of zero. The resulting pixels are converted to floating point format and are multiplied by a positive floating point gain factor. The resulting pixels are further converted to integer format and clamped to a maximum value using saturation arithmetic. Non-functional pixel correction is performed in integer format, and the resulting pixel values are clamped to a maximum value using saturation arithmetic. The resulting pixel value is mapped in integer format to a palette index using a lookup table to establish an output pixel intensity having one of a plurality of intensity levels.